

Application No.: 10/562,383  
Attorney Docket No.: 47675-065US0  
First Applicants' Name: Cathy Lofton-Day  
Application Filing Date: 13 June 2007  
Office Communication Dated: 07 October 2009  
Date of Response: 07 January 2010  
Examiner: Frank Wei Min Lu

### **REMARKS**

Claims 1-59 are pending and have been subjected to restriction by the Examiner.

Claims 9, 44, 52, 54, and 56 have been cancelled herein without prejudice.

#### ***Initial required election***

The Examiner, by way of restrictions, is requesting an initial election of one Group of claims from among Groups I-II.

- I. Group I (claims 1-45). Drawn to a method for detecting and/or for detecting and distinguishing between or among colon cell proliferative disorders in a subject (claims 1-19 and 45) and a method for detecting and/or for detecting and distinguishing between or among colon cell proliferative disorders and healthy tissues in a subject (claims 20-44).
- II. Group II (claims 46-51 and 53-59). Drawn to a treated nucleic acid (claims 46, 48, and 49), a nucleic acid (claim 47), an oligomer (claims 50 and 51), and a kit (claims 53-59).

Applicants herein elect **Group I** (claims 1-45), *with traverse*.

#### ***Further required sequence election***

The Examiner is further requiring a Sequence election applied to elected Group I.

Applicants herein elect HOMEBOX PROTEIN ARISTALESS-LIKE 4 (ALX4) (SEQ ID NO:5), *with traverse*.

The basis of Applicants' traversal is that the elected claims should also be examined with respect to the related bisulfite-converted sequences of SEQ ID NO:5; namely SEQ ID NOS:312, 313, 428, and 429, based on the fact that they represent the same genomic sequence.

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Specifically, SEQ ID NOS: 312, 313, 428 and 429 correspond to chemically-treated (bisulfite) versions of SEQ ID NO:5, wherein SEQ ID NOS: 312 (sense) and 313 (antisense) correspond to treated sequences wherein the CpG dinucleotides of SEQ ID NO:5 are methylated, and wherein SEQ ID NOS:428 (sense) and 429 (antisense) correspond to treated sequences wherein the CpG dinucleotides of SEQ ID NO:5 are unmethylated.

**The elected claims should, therefore, not only be examined with respect to SEQ ID NO:5, but additionally with respect to each of SEQ ID NOS: 312, 313, 428, and 429,**

because they correspond to bisulfite-treated sequences for the identical sequence region of genomic SEQ ID NO:5 and the patentability of claims limited by these SEQ ID NOS will be determined based on the novelty of analysis based on this genomic sequence region for the claimed indications.

Finally, in the event that a specific ALX 4 oligo, primer and/or probe *species* election is subsequently required for the ALX 4 gene are as follows, and should be included with respect to examination of any claims reciting a ALX 4 gene primer and/or probe, if needed:

Oligonucleotides: SEQ ID NOS: 697-716.

Left Primer: SEQ ID NOS:3028, 3032, 3033, 3036, 3037, 3038, 3039, 3041, 3042, 3043, 3044, 3047, 3048, 3049, 3052, 3055, 3059, 3061, 3064, 3065, 3068, 3069, 3071, 3072, 3075, 3076, 3080, 3083, 3084, 3085, 3086, 3091, 3093, 3096, 3097, 3100, 3104, 3109, 3110, 3113, 3115, 3117, 3118, 3123, 3126, 3127, 3130, 3134, 3135, 3136, 3138, 3139, 3144, 3146, 3147, 3149, 3150, 3155;

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Right Primer: SEQ ID NOS:3029, 3031, 3034, 3040, 3045, 3050, 3051, 3053, 3054, 3056, 3057, 3060, 3063, 3066, 3073, 3078, 3081, 3088, 3089, 3090, 3092, 3094, 3098, 3101, 3103, 3105, 3107, 3108, 3111, 3114, 3116, 3119, 3121, 3122, 3124, 3128, 3131, 3133, 3137, 3140, 3142, 3145, 3148, 3151, 3152, 3153, 3157; and

Detection Probes: SEQ ID NOS:3030, 3035, 3046, 3058, 3062, 3067, 3070, 3074, 3077, 3079, 3082, 3087, 3095, 3099, 3102, 3106, 3112, 3120, 3125, 3129, 3132, 3141, 3143, 3154, 3156, 3158.

In summary, the elected claims should be examined at least with respect to each of **SEQ ID NOS:5, 312, 313, 428, and 429**. Applicants point out that it has been the consistent practice of the Office to include the bisulfite-treated sequences with the underlying genomic sequence for examination. Furthermore, Applicants request that the above-identified ALX 4 oligo, primer and probe sequences be included as discussed above, if species elections are subsequently required.

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### *Conclusion*

In view of the foregoing amendments and remarks, Applicants respectfully request entry of the present Response and allowance of all claims as presented herein. The Examiner is encouraged to phone Applicants' attorney, Barry L. Davison, to resolve any outstanding issues and expedite allowance of this application.

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